Figure 1.

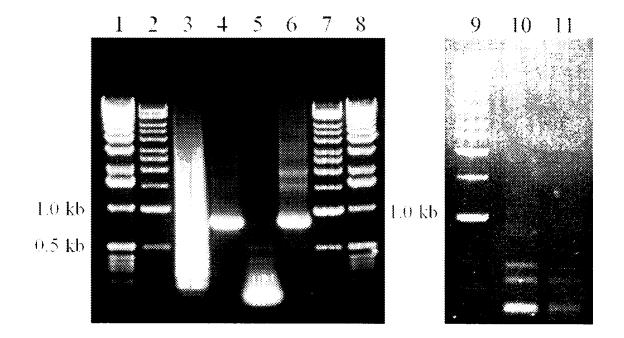


Figure 2.

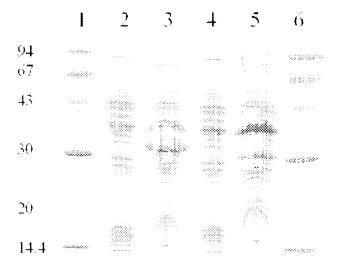
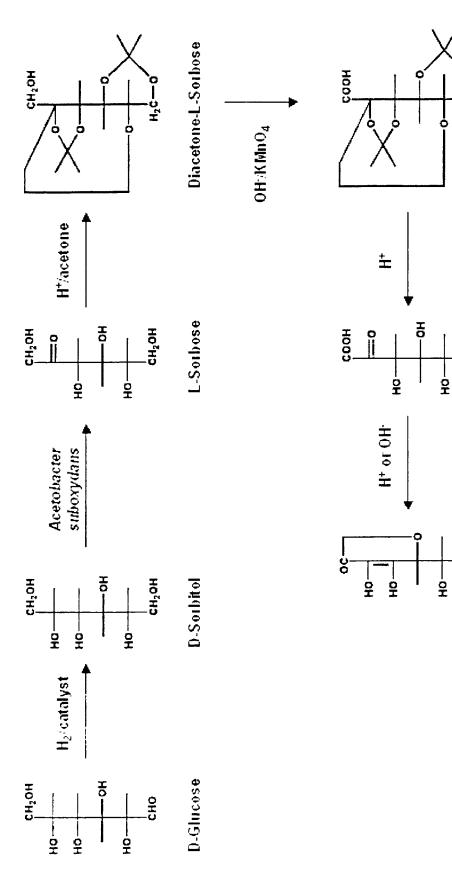


FIGURE 3



Diacetone-2-keto-L-Gulonic acid

2-keto-L-Gulonic acid

L-Ascorbic acid

CH₂OH

CH20H

The Sonoyama "Tandem Fermentation" Synthesis of L-Ascorbate (1982)

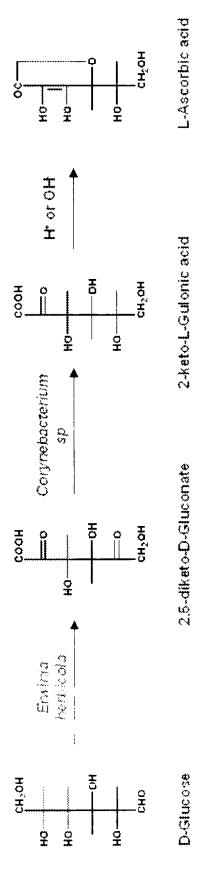


FIG.4

The "Single Bug" Synthesis of L-Ascorbate (Anderson 1985)

